

Remarks

Claims 1-9 and 11-22 are pending.

Rejections

Claims 1-5, 7, 9, 12, 13 and 19-22 are rejected under 35 USC 103(a) as being obvious over MacMahon, et.al., US 4,264,552, which discloses a host of pigment compositions which incorporate 0.5 - 20% of a binder/dispersant system, in view of Klug, US 2,618,632, which discloses cellulose derivatives. The Action argues that McMahon discloses the instant invention except for the specific cellulose derivative used, but that it would have been obvious to use the cellulose derivatives of Klug in the methods of MacMahon.

Applicants respectfully traverse the rejections.

The Action avers that Klug discloses the cellulose derivative of the instant invention. Applicants respectfully disagree. Klug discloses mixed cellulose ethers which contain at least 0.05 hydroxyl ethyl groups and at least 0.05 carboxymethyl groups for each anhydroglucose unit, for example, cellulose ethers containing 0.15-0.75 hydroxyethyl groups and 0.2-0.9 carboxymethyl groups per anhydro glucose unit (col. 1 / lines 35-45). That is, two ethers, one of which is a hydroxy ethyl, the other is a carboxyl containing methyl ether. (Column 6/ lines 1-20 make clear that the carboxyl alkyl group is a carboxylic acid which bears a halide on the alkyl chain to form an ether, not and ester). Neither group of Klug is therefore the alkyl or alkyl carbonyl of R1 of instant claim 1.

However, there is no need to belabor this point as the cellulose derivatives of the instant invention are known compounds outside of the cited disclosures. However, Applicants respectfully note that when considering the art, one must consider the entire document. An "as a whole assessment" of the art requires a showing that it would have been obvious for one to have selected the elements of the claimed invention when confronted by the problems address by the inventor based on what was clearly known or disclosed at the time. This is particularly true when a large number of non-exemplified materials are generically disclosed without any guidance as to which ones would be best suited for the desired purpose, as in the present case.

The instant invention has identified a novel composition containing at least 92% pigment, a binder, specific cellulose derivatives and a co-additive in specified ratios. The pigment compositions are extremely high in pigment content and yet have excellent aqueous dispersibility. The declaration submitted with Applicants' previous response was not designed to demonstrate all embodiments of the invention and Applicants respectfully aver that such a showing is not required. The declaration does however demonstrate that choosing specific cellulose derivatives and mixing them in certain ratios with selected co-additives provides a much more stable dispersion than is achieved otherwise.

Before proceeding, Applicants respectfully reject the assertion that the references are improperly being argued separately. Applicants must examine the elements of the pieces of art before ascertaining what the combined art would represent. Without doing so, it would be impossible to determine if the combination of references overcome the deficiencies of the individual references and teach the invention.

MacMahon discloses a huge array of possible formulations which in itself does not direct one to the instant invention. Klug teaches modified celluloses as detergents for suspended solid particles, which solid particles may be broadly interpreted as pigments, although it is clear that detergents are generally intended to act on dirt. However, if the particles were pigments, Klug does not isolate the pigment/modified cellulose composition, but rather washes it away (the deposition must be prevented – col. 7 / line 35). While Klug mentions in passing that the cellulose derivatives can be used in other applications where cellulose ethers are used, there is nothing in Klug to suggest the value of the instant cellulose derivatives in a pigment preparation and certainly no suggestion that it can be synergistically combined with an amine derivatives.

The Action avers that McMahon discloses the instant invention except for the specific cellulose used, but that it would have been obvious to use the derivatives of Klug. As noted above, the derivatives of Klug are not those of the instant invention, but even if they were, Applicants respectfully maintain that there is nothing in MacMahon, Klug, or the two together, suggesting or in any way leading one to select the particular combination of the instant cellulose derivatives and co-additives out of the large number of materials and combinations encompassed by the generic disclosure of MacMahon. For example, differently substituted celluloses are not equivalent, as recognized by Klug who pointed out specific properties (col. 1 / lines 48-54) and Paolo Balliello's declaration proves that there is a huge difference between Metocel® and Metolose®.

Further, McMahon discloses in principle binary pigment granulates comprising pigments and granulating assistants. The binary assistants can be non-ionic surfactants, cationic surface-active agents and/or anionic surfactants, further water soluble polymeric agents such as modified cellulose derivatives (only hydroxy ethyl cellulose, hydroxy propyl cellulose and sodium carboxymethyl cellulose), polyvinyl alcohol or polyvinyl pyrrolidone. McMahon discloses that "The surfactant component of the granulating assistant may be used alone, as a mixture of different surfactants or used in conjunction with, or replaced by, a binder and/or an application agent" (col. 3 / lines 16-22).

Applicants submit that such a general statement cannot be construed to be a suggestion to use a modified cellulose in combination with, e.g., fatty amines. Also McMahon discloses generically only amine salts (e.g. sulphates), and solely in the examples 17-19 is there a fatty amine or acetate thereof combined with a modified cellulose. However, in all these three examples the pigment is used in an amount lower than instantly claimed, the binder comprises a major amount of components not instantly claimed, the modified cellulose is of a type different from the instantly claimed type, and at least one instant component is outside the claimed range (examples 17+19: only 38% abietylamine / example 18: only 4.8% modified cellulose).

It is Applicants position that in order to arrive at the instant invention from the cited art, one would be required to select a cellulose type not disclosed in McMahon or Klug; increase in pigment concentration over the closest examples found in MacMahon; and omit or at least decrease the concentration of surfactants or further resins. Thus, Applicants respectfully submit that combined art would not suggest to the practitioner the specific elements of the instant invention as a means for obtaining low dust pigment compositions with excellent dispersibility.

Further regarding the previously filed declaration under rule 132 of Balliello as not being commensurate in scope with the claimed invention, Applicants offer the following. Applicants have found that a specific blend of components can be combined to form a binder, never before used in the claimed pigment preparations, which show outstanding efficacy. Applicants are not required to demonstrate each embodiment of the invention, but have provided several examples in the specification that show excellent properties. Further, Applicants have shown the value of the instant invention in the declaration which shows a surprising improvement over similar systems and the Examples in the specification clearly note that each give acceptable results comparable with each other.

Applicants therefore respectfully submit that the rejections of claims 1-5, 7, 9, 12, 13 and 19-22 under 35 USC 103(a) over MacMahon, et.al., US 4,264,552, in view of Klug, US 2,618,632, are overcome and kindly ask that the rejections be withdrawn.

Claims 6, 11 and 14-18 are rejected under 35 USC 103(a) as being obvious over MacMahon, et.al., US 4,264,552 and Klug, US 2,618,632 in view of Pollard, US 3,728,143.

Claim 8 is rejected under 35 USC 103(a) as being obvious over MacMahon, et.al., US 4,264,552 and Klug, US 2,618,632 in view of Kurtz, US 5,082,498.

Applicants respectfully traverse the rejections.

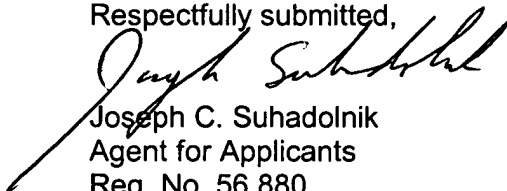
Applicants refer to the above discussion regarding MacMahon, et.al., US 4,264,552 and Klug, US 2,618,632 and note that of Pollard, US 3,728,143 does not overcome these deficiencies nor does Kurtz, US 5,082,498.

Applicants therefore respectfully submit that the rejections under 35 USC 103(a) over MacMahon, et.al., US 4,264,552, Klug, US 2,618,632 and Pollard, US 3,728,143; and the rejections under 35 USC 103(a) over MacMahon, et.al., US 4,264,552, Klug, US 2,618,632 and Kurtz, US 5,082,498 are overcome and kindly ask that the rejections be withdrawn.

In light of the discussions above, and those already of record, Applicants respectfully submit that all rejections and objections are addressed and are overcome and kindly ask that they be withdrawn and claims 1-9 and 11-22 be found allowable. In the event that minor amendments will further prosecution, Applicants request that the examiner contact the undersigned representative.

Ciba Specialty Chemicals Corporation
Patent Department
540 White Plains Road
P.O. Box 2005
Tarrytown, NY 10591-9005
Tel. (914) 785-2973
Fax (914) 785-7102

Respectfully submitted,


Joseph C. Suhadolnik
Agent for Applicants
Reg. No. 56,880
filed under 37 CFR 1.34(a)